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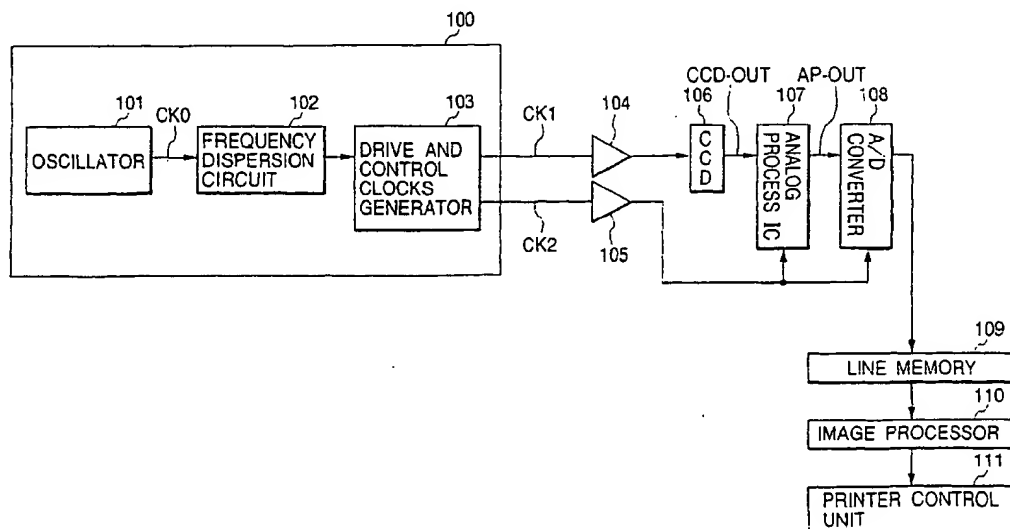
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### (54) Clock control device used in image formation

(57) A clock control apparatus and method of an image forming apparatus, which oscillates a reference clock at predetermined periods, generates a clock signal having a frequency higher than a frequency of the reference clock using the reference clock to generate by using the reference clock, a clock signal having a fre-

quency higher than that of the reference clock, continuously changes the frequency of the clock signal at the predetermined periods with respect to the frequency of the reference clock, and generates a control clock using the clock signal, the frequency of which is continuously changed. The continuous change in frequency of the clock signal at a read timing of image data.

FIG. 1



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# EUROPEAN SEARCH REPORT

Application Number

EP 99 30 5287

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.C1.7)
X	US 5 757 338 A (PIMPALKHARE MANGESH S ET AL) 26 May 1998 (1998-05-26) * column 2, line 29 - line 67 *	4,9,14, 16	H04N5/335 H04N5/217
A	* column 6, line 22 - line 39 *	1,5,7, 12,19,21	
X	US 5 631 920 A (HARDIN KEITH B) 20 May 1997 (1997-05-20) * column 2, line 64 - column 3, line 20 *	4,9,14, 16	
A	EP 0 752 784 A (KONISHIROKU PHOTO IND) 8 January 1997 (1997-01-08) * column 2, line 32 - line 40 *	1,7	
			TECHNICAL FIELDS SEARCHED (Int.C1.7)
			H04N
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 20 September 2000	Examiner Bequet, T
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone  Y : particularly relevant if combined with another document of the same category  A : technological background  O : non-written disclosure  P : intermediate document</p> <p>T : theory or principle underlying the invention  E : earlier patent document, but published on, or after the filing date  D : document cited in the application  L : document cited for other reasons  &amp; : member of the same patent family, corresponding document</p>			

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**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

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20-09-2000

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5757338 A	26-05-1998	US 6046735 A	04-04-2000
		US 6057809 A	02-05-2000
		US 5943382 A	24-08-1999
US 5631920 A	20-05-1997	US 5488627 A	30-01-1996
		EP 0739089 A	23-10-1996
		JP 9098152 A	08-04-1997
		US 5872807 A	16-02-1999
		US 5867524 A	02-02-1999
		AU 676355 B	06-03-1997
		AU 7282194 A	15-06-1995
		CA 2131567 A	30-05-1995
		EP 0655829 A	31-05-1995
		JP 7235862 A	05-09-1995
EP 0752784 A	08-01-1997	JP 9023317 A	21-01-1997
		JP 9046477 A	14-02-1997
		US 5963344 A	05-10-1999

EPO FORM P0455

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

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